

Geometry 7.4 Assignment: Translations and Vectors (pp 421-424)

1. What is your name?

Use coordinate notation to describe the translation.

2. 7 units to the left and 4 units down

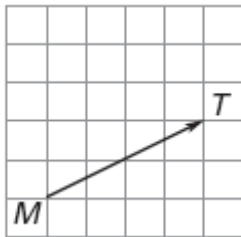
3. 5 units left and 2 units down

4. 3 units down

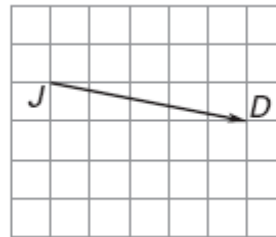
5. 10 units right and 8 units up

Name the vector and write its component form.

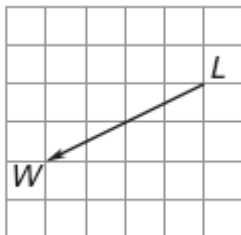
6.



7.



8.



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Given $\triangle ABC$ with vertices $A(-2, 4)$, $B(6, 2)$, and $C(3, -2)$ is translated to $\triangle A'B'C'$. Determine the translation using a vector in component form, and determine the coordinates of the remaining vertices.

9. $C'(3, 4)$

10. $C'(-4, -5)$

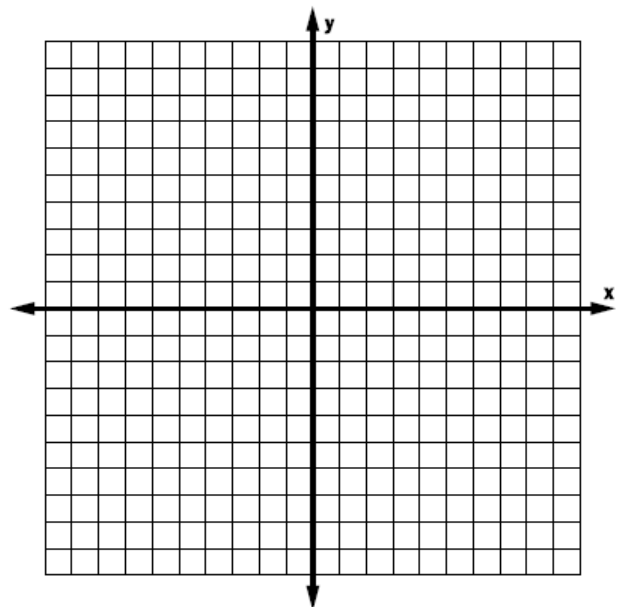
11. $A'(-5, 5)$

12. $B'(8, 6)$

Draw the pre-image and the image after the translation.

13. Quadrilateral $M(-1, 3)$, $P(6, 2)$, $O(4, -2)$ and $N(1, -1)$.

$$(x, y) \rightarrow (x - 2, y + 4)$$



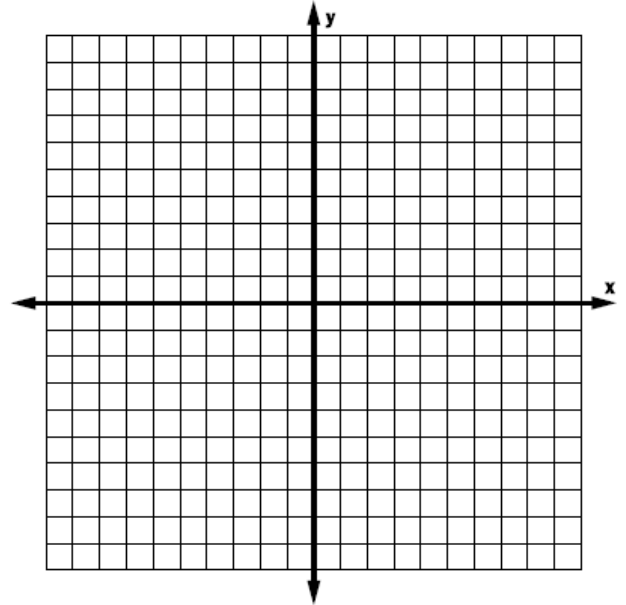
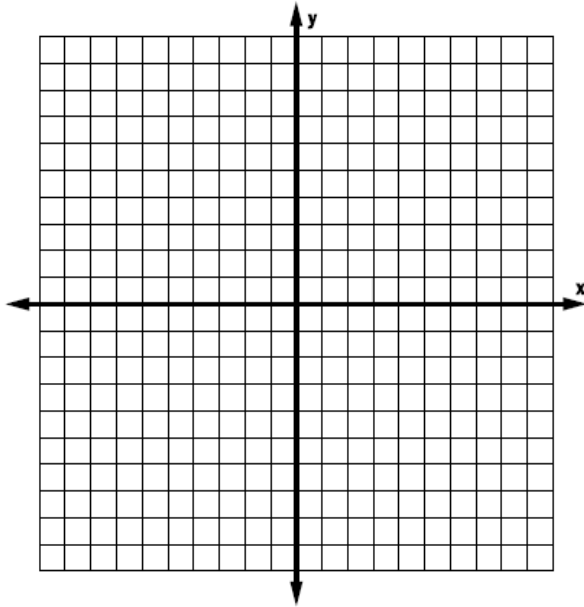
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14. Quadrilateral M(-1, 3), P(6, 2), O(4, -2) and N(1, -1).

$$(x, y) \rightarrow (x+5, y+1)$$

15. Quadrilateral M(-1, 3), P(6, 2), O(4, -2) and N(1, -1).

$$(x, y) \rightarrow (x-3, y-7)$$



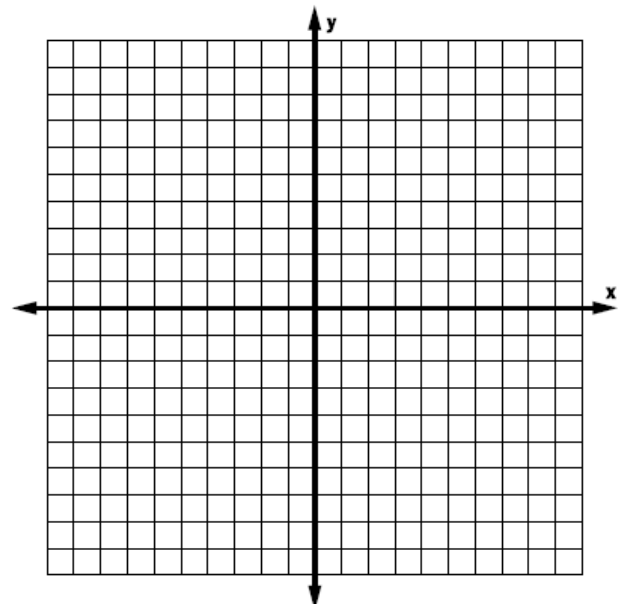
17. . Quadrilateral M(-1, 3), P(6, 2), O(4, -2) and N(1, -1).

$$(x, y) \rightarrow (x+4, y-5)$$

Review.

Find the slope of the line that passes through the given points. (Chapter 3 Section 6).

18. C(2, 3) & D(-1, 18)



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19. $J(-6, 0)$ & $K(0, 10)$

20. $E(-10, 1)$ & $F(-1, 1)$

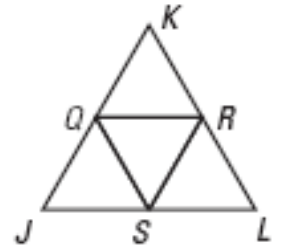
21. $M(-3, -3)$ & $N(9, 6)$

In $\triangle JKL$, points Q , R , and S are midpoints of the sides. (Chapter 5 Section 4)

22. If $JK = 12$, find SR .

23. If $QR = 6$, then find JL .

24. If $RL = 6$, then find QS .



True or False. (Chapter 7 Section 2)

25. _____ If $N(3, 4)$ is reflected in the line $y = -1$, then N' is $(3, -6)$.

26. _____ If $M(-5, 3)$ is reflected in the line $x = -2$, then M' is $(3, 1)$.

27. _____ If $W(4, 3)$ is reflected in the line $y = 2$, then W' is $(1, 4)$.

